

parenchyma it can walk over, having been exposed by the removal of the epidermal cells above in the sap-drinking phase. It cannot enlarge the mine by chewing in a horizontal plane, nor can it make a fresh mine. The reason why *Phyllonorycter* can complete their development within their mines is that in their case hypermetamorphosis does not take place until the third ecdysis. Their additional sap-drinking instar enables them to make a larger epidermal mine in which enough parenchyma is exposed to last them until they are full-fed.

The very closely related *P. alpicola* (Wocke) makes an even more mine-like spinning on mountain avens (*Dryas octopetala*) and I incorrectly described it as a mine in *The field guide to the smaller British Lepidoptera* (p.55). Happily this was challenged by Dr. M. R. Shaw. When I sent him old examples of the feeding, he at first tended to agree with me, but after damping the leaves and opening up the feeding places he found that they were in fact folds and not mines. — A. M. EMMET, Labrey Cottage, Victoria Gardens, Saffron Walden, Essex, CB11 3AF.

FREEZE-DRYING LEPIDOPTERA — AND A NOTE OF CAUTION. — For those such as myself who are fortunate enough to have access to the equipment, freeze-drying is an excellent method of preserving entomological specimens in all Orders, pinned or otherwise, without risk of distortion or loss of colour. It must surely be the most favoured method for drying pinned Odonata, in which Order the abdominal colours are very prone to fading. Its application extends to all other insects and other invertebrates where the retention of colour and morphological characteristics of the abdomen and other “soft-parts” are required. At the Passmore Edwards Museum, I use the technique on the wingless females of *Orgyia antiqua*, *Operophtera brumata* and other species which look most un-attractive in the cabinet if their abdomens have shrivelled — having no wings to catch the eye of the observer. The technique also works well on many ‘micros’ whose abdomens shrink to such an extent that they often all but disappear. The value of freeze-drying for display work is enormous, particularly for larvae.

My note of caution however, involves the use of plastazote as a setting medium. I normally use small squares of 7mm plastazote, cutting a groove with a scalpel blade, thus I can create a “perfect” groove for each specimen in very few moments. Recently however, I used a sheet of 7mm plastazote measuring about 15 x 20 cms, on which several specimens were pinned, and left this in the bottom of an Edwards EF — 2 freeze-drier for 15 days over the Christmas period. When I removed this from the freeze-drier, I found that it had distorted considerably and had, as a result ruined several specimens.

I cannot say why this distortion occurred, nor can I say whether the size of the sheet or the length of the run had any bearing on the

matter. I feel it advisable in future however, to stick to compressed cork setting boards for 'macros' and balsa wood for 'micros', and accordingly I am passing on this advice. — COLIN W. PLANT, Assistant Curator, Natural Sciences (Biology), Passmore Edwards Museum, Romford Road, Stratford, London, E15 4LZ.

Current Literature

Check List of the Lepidoptera of America North of Mexico including Greenland. Edited by R. W. Hodges et al. 4to., stiff wrapper, pp.xxiv + 284. E. W. Classey Ltd., Faringdon, Oxon and The Wedge Entomological Research Foundation, Washington, D.C. 1983. Price £46.40 inclusive.

This work, beautifully printed in England by the Cambridge University Press, is the first published list of the names of North American (North of Mexico) lepidoptera to appear since McDunnough's *Check list of the Lepidoptera of Canada and the United States of America* (1938-39), and according to the authors, represents the state of published and unpublished knowledge available to the end of 1978.

The introduction (pp.ix-xxiv) contains an indication of extralimital and unplaced names; abbreviations; an outline of the classification adopted, together with detailed notes on the various families; the names of the authors and parts of the list that each prepared; and, finally, a bibliography of 94 items.

Then follows the check list itself (pp.1-159), printed in treble column with the names of the authors responsible for the various sections indicated throughout, usually in association with familial names. In all there are 11,233 species' names, each numbered in sequence, in addition to their subspecies and synonyms. With every one of these names, as well as with the generic names, the names of their authors and years of publication are given. New systematic information, such as new combinations, new synonyms and changes in status, is indicated throughout the list, and some infrasubspecific names are also included. A comprehensive index to all the names (pp.161-284) completes the work. — J. M. C.-H.

Entomology: A Guide to Information Sources by Pamela Gilbert and C. J. Hamilton. Pp. viii+237. Mansell Publishing Ltd. 1983. £18 p.f.

Owing to the great increase of late in the amount of entomological literature published, there is a very definite need for such compilations as the one under review. Written by two entomological librarians, this is not intended as a guide to the literature of particular groups of insects, but as an introduction and source book for entomology by subject. It consists mainly of a selection of standard texts, including broadly speaking, works the authors considered of most use, and is international in scope.